Project Title	Funding	Strategic Plan Objective	Institution
Regulation of cortical circuits by tsc1 in GABAergic interneurons	$0	Q2.S.B	Yale University
Dysregulation of Mdm2-mediated p53 ubiquitination in autism mouse models	$0	Q2.S.D	University of Illinois at Chicago
The Role of Glia in Fragile X Syndrome	$0	Q2.S.D	Johns Hopkins University
Beta-catenin signaling in autism spectrum disorders	$0	Q2.S.G	University of Illinois at Chicago
Role of GABA interneurons in a genetic model of autism	$0	Q2.S.D	Yale University
Mechanisms of synapse elimination by autism-linked genes	$0	Q2.S.D	University of Texas Southwestern Medical Center
Dendritic 'translatome' in fragile X syndrome and autism	$0	Q2.S.D	University of Michigan
A functional genomic analysis of the cerebral cortex	$0	Q2.Other	University of California, Los Angeles
Functional analysis of EPHB2 mutations in autism - Project 1	$0	Q2.Other	Yale University
Probing the Molecular Mechanisms Underlying Autism: Examination of Dysregulated Protein Synthesis	$0	Q2.S.D	National Institutes of Health
A cerebellar mutant for investigating mechanisms of autism in Tuberous Sclerosis	$0	Q2.S.D	Boston Children's Hospital
Autism phenotypes in Tuberous Sclerosis: Risk factors, features & architecture	$0	Q2.S.D	King's College London
Undergraduate Research Award	$0	Q2.S.G	Rutgers University
Undergraduate Research Award	$0	Q2.S.G	Harvard University
Abnormalities in signal transduction in autism	$0	Q2.S.A	New York State Institute for Basic Research in Developmental Disabilities
Neural Correlates of the Y Chromosome in Autism: XYY Syndrome as a Genetic Model	$0	Q2.S.D	Nemours Children's Health System, Jacksonville
Neural Correlates of the Y Chromosome in Autism: XYY Syndrome as a Genetic Model	$0	Q2.S.D	Children's Hospital of Philadelphia
Dual modulators of GABA-A and Alpha7 nicotinic receptors for treating autism	$0	Q2.Other	University of California, Irvine
The role of the new mTOR complex, mTORC2, in autism spectrum disorders	$0	Q2.Other	Baylor College of Medicine
DISRUPTION OF TROPHIC INHIBITORY SIGNALING IN AUTISM SPECTRUM DISORDERS	$0	Q2.Other	Northwestern University
Modeling Pitt-Hopkins Syndrome, an Autism Spectrum Disorder, in Transgenic Mice Harboring a Pathogenic Dominant Negative Mutation in TCF4	$0	Q2.S.D	University of North Carolina
Mitochondrial Dysfunction and Autism Spectrum Disorders-Inflammatory Subtype	$56	Q2.S.A	University of Arkansas
TrkB agonist therapy for sensorimotor dysfunction in Rett syndrome	$5,867	Q2.S.D	Case Western Reserve University
TSC/mTOR Signaling in Adult Hippocampal Neurogenesis: Impact on Treatment and Behavioral Models of Autism Spectrum Disorders in Mice	$7,769	Q2.Other	University of California, Los Angeles

Project Title	Funding	Strategic Plan Objective	Institution
a-Actinin Regulates Postsynaptic AMPAR Targeting by Anchoring PSD-95	$15,000	Q2.Other	University of California, Davis
PPAR/SIRT1 PATHWAY IN C. ELEGANS	$22,740	Q2.S.D	Children's Hospital of Philadelphia
Genetics Behind Brain Connectivity in ASD	$25,000	Q2.S.G	University of Texas Southwestern Medical Center
Brain Somatic Mosaicism at ASD-Associated Loci	$25,000	Q2.Other	University of Michigan
The Interplay Between Human Astrocytes and Neurons in Psychiatric Disorders	$25,000	Q2.Other	University of California, San Diego
FMRP and Pumilio co-regulate synaptogenesis by controlling Neuroglian expression	$27,480	Q2.S.D	Vanderbilt University
Autism Linked LRRTM4-Heparan Sulphate Proteoglycan Complex Functions in Synapse Development	$29,479	Q2.S.G	University of British Columbia
Identification and validation of genetic variants which cause the Autism Macrocephaly subphenotype	$29,500	Q2.S.G	University of California, Los Angeles
Corticogenesis and Autism Spectrum Disorders: New Hypotheses on Transcriptional Regulation of Embryonic Neurogenesis by FGFs from In Vivo Studies and RNA-sequencing Analysis of Mouse Brain	$29,993	Q2.Other	Yale University
Motor cortex plasticity in MeCP2 duplication syndrome	$30,000	Q2.S.D	Baylor College of Medicine
Modeling Microglial Involvement in Autism Spectrum Disorders, with Human Neuro-glial Co-cultures	$30,000	Q2.S.D	Whitehead Institute for Biomedical Research
Signaling Pathways that Regulate Excitatory-inhibitory Balance	$30,000	Q2.Other	University of California, San Diego
Dissecting Reciprocal CNVs Associated With Autism	$30,000	Q2.Other	Duke University
A Role for Cytoplasmic Rbfox1/A2BP1 in Autism	$30,000	Q2.Other	University of California, Los Angeles
Perturbation of Excitatory Synapse Formation in Autism Spectrum Disorders	$30,000	Q2.Other	Max Planck Florida Institute for Neuroscience
Investigating the Role of RBFOX1 in Autism Etiology	$30,000	Q2.Other	University of Miami
Interrogating Synaptic Transmission in Human Neurons	$30,000	Q2.Other	Stanford University
Mouse Model of Dup15q Syndrome	$32,635	Q2.S.D	Texas AgriLife Research
Dysregulated Translation and Synaptic Dysfunction in Medium Spiny Neurons of Autism Model Mice	$33,333	Q2.Other	New York University
Disruption of Reelin biosynthesis by de novo missense mutations found in aut	$33,503	Q2.Other	UPSTATE MEDICAL UNIVERSITY
Cortactin and Spine Dysfunction in Fragile X	$33,763	Q2.S.D	University of California, Irvine
Calcium Channels as a Core Mechanism in the Neurobiology of ASD	$35,000	Q2.S.D	Massachusetts General Hospital
Monoallelic expression in neurons derived from induced pluripotent stem cells	$35,232	Q2.Other	ALBERT EINSTEIN COLLEGE OF MEDICINE
A Novel Essential Gene for Human Cognitive Function	$35,474	Q2.S.D	Harvard University

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Timed mRNA translation events in neocortical development and neurodevelopmental disorders	$39,720	Q2.Other	RBHS-ROBERT WOOD JOHNSON MEDICAL SCHOOL
The PI3K Catalytic Subunit p110delta as Biomarker and Therapeutic Target in Autism and Schizophrenia	$45,000	Q2.Other	Cincinnati Children's Hospital
Understanding the Role of Epac2 in Cognitive Function	$48,120	Q2.Other	Northwestern University
A Novel GABA Signalling Pathway in the CNS	$50,000	Q2.Other	McLean Hospital
Identification of genetic pathways that regulate neuronal circuits in C. elegans	$54,194	Q2.Other	University of California, San Diego
Dissecting the 16p11.2 CNV endophenotype in induced pluripotent stem cells	$54,400	Q2.S.D	University of California, San Francisco
Analysis of MEF2 in Cortical Connectivity and Autism-Associated Behaviors	$56,042	Q2.S.D	McLean Hospital
Investigating role of neurexin-1 mutation in autism using human induced neurons	$56,042	Q2.Other	STANFORD UNIVERSITY
BAZ1B Haploinsufficiency and the Neuro-phenotypes of Williams Syndrome	$59,000	Q2.S.D	The Regents of the University of California, Santa Barbara
Role of Neurexin in Synapse Formation and Maintenance	$59,966	Q2.Other	STANFORD UNIVERSITY
Potassium channels as therapeutic targets in autism	$60,000	Q2.S.D	Administrators of the Tulane Educational Fund
Rescuing synaptic and circuit deficits in an Angelman syndrome mouse model	$60,000	Q2.S.D	Arizona Board of Regents, University of Arizona
Impact of Pten mutations: brain growth trajectory and scaling of cell types	$60,000	Q2.Other	The Scripps Research Institute
Explore the pathogenic role of mTor signaling in chr16p11.2 microdeletion	$60,000	Q2.Other	CHILDREN'S HOSPITAL OF LOS ANGELES
A Novel Glial Specific Isoform of Cdkl5: Implications for the Pathology of Autism in Rett Syndrome	$60,000	Q2.S.D	University of Nebraska
Optogenetic treatment of social behavior in autism	$60,236	Q2.Other	University of California, Los Angeles
Functional analysis of EPHB2 mutations in autism	$62,475	Q2.Other	McLean Hospital
Illuminating the role of glia in a zebrafish model of Rett syndrome	$62,500	Q2.S.D	The Regents of the University of California, San Diego
Neuronal translation in Tsc2+/- and Fmr1-/y mutant ASD mouse models	$62,500	Q2.S.D	The Trustees of Columbia University in the City of New York
CNTNAP2 regulates production, migration and organization of cortical neurons	$62,500	Q2.Other	Memorial Sloan-Kettering Cancer Center
Pathogenic roles of paternal-age-associated mutations in autism	$62,500	Q2.Other	Weill Cornell Medical College
Role of LIN28/let-7 axis in autism	$62,500	Q2.Other	Johns Hopkins University
BDNF regulation of the cortical neuron transcriptome	$76,792	Q2.Other	University of Colorado, Denver

Project Title	Funding	Strategic Plan Objective	Institution
FMRP regulates the pruning of cell-to-cell connections in the neocortex	$79,500	Q2.S.D	UT SOUTHWESTERN MEDICAL CENTER
Striatal Specific Alterations in Translation, Synaptic Function, and Behavior in	$81,581	Q2.Other	New York University
Neurobiology of Rai1, a critical gene for syndromic ASDs	$87,500	Q2.S.D	The Board of Trustees of the Leland Stanford Junior University (Stanford)
Protein Interaction Network Analysis to Test the Synaptic Hypothesis of Autism	$90,000	Q2.Other	MAYO CLINIC ROCHESTER
Mechanisms and Rescue of Neural Circuit Dysfunction in Mecp2 Mutant Mice	$92,578	Q2.S.D	Baylor College of Medicine
Alternative splicing-mediated mechanisms of cortical interneuron maturation and circuit integration	$98,061	Q2.Other	New York University
Modeling multiple heterozygous genetic lesions in autism using Drosophila melanogaster	$101,373	Q2.Other	University of California, Los Angeles
MAGEL2, a candidate gene for autism and Prader-Willi syndrome	$105,977	Q2.S.D	University of Alberta
Project 4: Calcium Signaling Defects in Autism (Pessah/Lein)	$107,518	Q2.Other	University of California, Davis
Role of Autism Susceptibility Gene, TAOK2 kinase, and its novel substrates in Synaptogenesis	$120,904	Q2.Other	UNIVERSITY OF CALIFORNIA, SAN FRANCISCO
Fragile X syndrome target analysis and its contribution to autism	$124,725	Q2.S.D	Vanderbilt University
Probing synaptic receptor composition in mouse models of autism	$124,998	Q2.S.D	Boston Children's Hospital
Sexually dimorphic gene-expression and regulation to evaluate ASD sex bias	$125,000	Q2.S.B	University of California, San Francisco
Multigenic basis for autism linked to 22q13 chromosomal region	$125,000	Q2.S.D	Hunter College of the City University of New York (CUNY) jointly with Research Foundation of CUNY
RNA dysregulation in autism	$125,000	Q2.Other	ROCKEFELLER UNIVERSITY
Endocannabinoids in social and repetitive behavioral domains	$143,751	Q2.L.B	Vanderbilt University
Tools for manipulating local protein synthesis in the brain	$148,500	Q2.Other	UNIVERSITY OF TORONTO
Targeting the PI3K Enhancer PIKE to Reverse FXS-associated Phenotypes	$160,000	Q2.S.D	Emory University
Dysregulation of mTOR Signaling in Fragile X Syndrome	$164,833	Q2.S.D	ALBERT EINSTEIN COLLEGE OF MEDICINE
mTOR modulation of myelination	$179,659	Q2.S.D	Vanderbilt University
A mouse model for AUTS2-linked neurodevelopmental disorders	$189,187	Q2.S.D	University of Illinois
Mechanisms underlying the Cerebellar Contribution to Autism in Mouse Models of Tuberous Sclerosis Complex	$190,458	Q2.S.D	UT SOUTHWESTERN MEDICAL CENTER

Project Title	Funding	Strategic Plan Objective	Institution
Decoding the RGS14 Interactome/Signalosome in CA2 hippocampal neurons	$191,640	Q2.Other	Emory University
Identification of TSC cellular phenotypes using patient-derived iPSCs	$193,750	Q2.S.D	Rutgers University
Protein network of high risk copy number variants for psychiatric disorders	$193,750	Q2.Other	University of California, San Diego
Imaging of protein synthesis and ubiquitination in fragile x syndrome	$195,000	Q2.S.D	Emory University
Role of autism-associated chromatin remodeler Brg1 in neuronal development	$198,750	Q2.Other	UT SOUTHWESTERN MEDICAL CENTER
Identification of human-relevant CLOCK molecular signaling pathways	$201,875	Q2.S.E	UT SOUTHWESTERN MEDICAL CENTER
Mechanisms of Autonomic Brainstem Development	$202,500	Q2.Other	CHILDREN'S HOSPITAL OF LOS ANGELES
Astrocytes contribution to tuberous sclerosis pathology	$208,125	Q2.S.D	Yale University
Molecular control of prefrontal cortical circuitry in autism	$211,875	Q2.Other	ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI
Role of a novel PRCI complex in neurodevelopment and ASD neurobiology	$225,000	Q2.Other	New York University
UBR7 is a novel chromatin directed E3 ubiquitin ligase	$225,956	Q2.Other	Northwestern University
Coordinate actions between methyl-CpG binding proteins in neuronal development	$226,585	Q2.S.D	University of Wisconsin
Reducing Diversity at the Gamma Protocadherin Locus by CRISPR Targeting	$230,739	Q2.Other	JACKSON LABORATORY
Chloride homeostasis and GABA maturation in fragile X syndrome	$231,750	Q2.S.D	Northwestern University
Variation in Neuroligin Concentration and Presynaptic Functional Development	$237,438	Q2.Other	UNIVERSITY OF CALIFORNIA, SAN FRANCISCO
Interneuron subtype-specific malfunction in autism spectrum disorders	$240,000	Q2.Other	New York University
Deficits in KCC2 activity and the pathophysiology of Autism spectrum disorders	$247,500	Q2.Other	Tufts University
Novel candidate mechanisms of fragile X syndrome	$248,235	Q2.S.D	UNIVERSITY OF MICHIGAN
Presynaptic Fragile X Proteins	$249,000	Q2.S.D	DREXEL UNIVERSITY
Protein Interaction Network Analysis to Test the Synaptic Hypothesis of Autism	$249,000	Q2.Other	SEATTLE CHILDREN'S HOSPITAL
Translational dysregulation in autism pathogenesis and therapy	$250,000	Q2.S.D	Massachusetts General Hospital
Dysregulation of mTOR Signaling in Fragile X Syndrome	$250,167	Q2.S.D	ALBERT EINSTEIN COLLEGE OF MEDICINE
Functional Genomics of Human Brain Development	$317,764	Q2.Other	Yale University
Caspr2 as an autism candidate gene: a proteomic approach to function & structure.	$318,000	Q2.Other	RBHS-ROBERT WOOD JOHNSON MEDICAL SCHOOL

Project Title	Funding	Strategic Plan Objective	Institution
Role of UBE3A in the Central Nervous System	$321,269	Q2.S.D	University of North Carolina
Molecular Dissection of Calmodulin Domain Functions	$321,473	Q2.Other	UNIVERSITY OF IOWA
Inhibitory mechanisms for sensory map plasticity in cerebral cortex.	$326,282	Q2.Other	University of California, Berkeley
Spastic paraplegia, neurodegeneration and autism: possible role for AT-1/SLC33A1?	$330,978	Q2.Other	University of Wisconsin
Functional analysis of Neuroligin-Neurexin interactions in synaptic transmission	$336,875	Q2.Other	University of Massachusetts, Worcester
ELUCIDATING THE FUNCTION OF CLASS 4 SEMAPHORINS IN GABAERGIC SYNAPSE FORMATION.	$353,931	Q2.Other	BRANDEIS UNIVERSITY
THE ROLE OF MECP2 IN RETT SYNDROME	$356,699	Q2.S.D	University of California, Davis
Translational Regulation of Adult Neural Stem Cells	$372,633	Q2.S.D	University of Wisconsin
Engrailed targets and the control of synaptic circuits in Drosophila	$375,000	Q2.Other	UNIVERSITY OF PUERTO RICO MED SCIENCES
Development and afferent regulation of auditory neurons	$376,200	Q2.S.D	Florida State University
Neurobiological Mechanism of 15q11-13 Duplication Autism Spectrum Disorder	$380,625	Q2.S.D	BETH ISRAEL DEACONESS MEDICAL CENTER
Translation, Synchrony, and Cognition	$380,953	Q2.S.D	New York University
Monoallelic expression in neurons derived from induced pluripotent stem cells	$382,268	Q2.Other	ALBERT EINSTEIN COLLEGE OF MEDICINE
Genetic and Developmental Analyses of Fragile X Mental Retardation Protein	$383,322	Q2.S.D	Vanderbilt University
Optogenetic treatment of social behavior in autism	$385,000	Q2.Other	University of California, Los Angeles
PHENOTYPING ASTROCYTES IN HUMAN NEURODEVELOPMENTAL DISORDERS	$386,607	Q2.Other	STANFORD UNIVERSITY
Role of MEF2 and neural activity in cortical synaptic weakening and elimination	$388,354	Q2.S.D	UT SOUTHWESTERN MEDICAL CENTER
Molecular mechanisms of the synaptic organizer alpha-neurexin	$388,750	Q2.Other	UNIVERSITY OF TEXAS MEDICAL BR GALVESTON
Sex-specific regulation of social play	$391,250	Q2.S.B	BOSTON COLLEGE
Synaptic Phenotype, Development, and Plasticity in the Fragile X Mouse	$395,642	Q2.S.D	MICHIGAN STATE UNIVERSITY
New Models For Astrocyte Function in Genetic Mouse Models of Autism Spectrum Diso	$396,250	Q2.S.D	CLEVELAND CLINIC LERNER COM-CWRU
Investigating the Mechanism of Optic Nerve Hypoplasia Associated with CASK Mutation	$398,230	Q2.Other	VIRGINIA POLYTECHNIC INST AND ST UNIV
Shank3 in Synaptic Function and Autism	$401,250	Q2.Other	MASSACHUSETTS INSTITUTE OF TECHNOLOGY
The role of Foxp1-regulated signaling pathways in brain development and behavior	$403,750	Q2.S.G	UT SOUTHWESTERN MEDICAL CENTER

Project Title	Funding	Strategic Plan Objective	Institution
The Impact of Pten Signaling on Neuronal Form and Function	$405,000	Q2.Other	DARTMOUTH COLLEGE
Autism-linked endosomal mechanisms in neuronal arborization and connectivity	$406,250	Q2.Other	BROWN UNIVERSITY
Mechanisms of mGluR5 function and dysfunction in mouse autism models	$410,720	Q2.S.D	UT SOUTHWESTERN MEDICAL CENTER
Biology of Non-Coding RNAs Associated with Psychiatric Disorders	$416,433	Q2.Other	University of Southern California
Neuronal Adaptation and Plasticity after Chronic Disuse	$423,750	Q2.Other	New York University
Analysis of Shank3 Complete and Temporal and Spatial Specific Knockout Mice	$425,202	Q2.Other	Duke University
Heparan sulfate in neurophysiology and neurological disorders	$449,744	Q2.Other	SANFORD-BURNHAM MEDICAL RESEARCH INSTIT
BDNF and the Restoration of Synaptic Plasticity in Fragile X and Autism	$455,630	Q2.S.D	University of California, Irvine
High content assays for cellular and synaptic phenotypes	$462,191	Q2.Other	University of California, San Diego
Dissecting neural mechanisms integrating multiple inputs in C. elegans	$485,000	Q2.Other	SALK INSTITUTE FOR BIOLOGICAL STUDIES
Gaining insight into psychiatric disease by engineering piece by piece the human brain in vitro.	$496,813	Q2.Other	STANFORD UNIVERSITY
Reproducible protocols for robust cortical neuron and astroglial differentiation	$500,132	Q2.Other	University of California, San Diego
Synaptic pathophysiology of the 16p11.2 microdeletion mouse model	$557,176	Q2.Other	MASSACHUSETTS INSTITUTE OF TECHNOLOGY
Dissecting recurrent microdeletion syndromes using dual-guide genome editing	$580,798	Q2.Other	Massachusetts General Hospital
Mechanotransduction C. elegans	$588,908	Q2.Other	Massachusetts General Hospital
A Family-Genetic Study of Autism and Fragile X Syndrome	$597,808	Q2.S.D	Northwestern University
Neuronal Activity-Dependent Regulation of MeCP2	$600,383	Q2.S.D	Harvard University
Tet-mediated Epigenetic Modulation in Autism	$603,129	Q2.S.D	Emory University
Dynamic regulation of Shank3 and ASD	$612,287	Q2.Other	Johns Hopkins University
Impact of SynGAP1 Mutations on Synapse Maturation and Cognitive Development	$614,568	Q2.Other	The Scripps Research Institute
Neurotrophic Factor Regulation of Gene Expression	$618,134	Q2.S.D	Harvard University
Engrailed genes and cerebellum morphology, spatial gene expression and circuitry	$639,375	Q2.S.G	SLOAN-KETTERING INST CAN RESEARCH
Function and Structure Adaptations in Forebrain Development	$678,394	Q2.Other	CHILDREN'S HOSPITAL OF LOS ANGELES

Project Title	Funding	Strategic Plan Objective	Institution
Induced neuronal cells: A novel tool to study neuropsychiatric diseases	$680,862	Q2.Other	STANFORD UNIVERSITY
FUNCTION OF NEUREXINS	$716,276	Q2.Other	STANFORD UNIVERSITY
MRI Biomarkers of Patients with Tuberous Sclerosis Complex and Autism	$727,821	Q2.S.D	CHILDREN'S HOSPITAL CORPORATION
The Elongation Hypothesis of Autism	$760,000	Q2.Other	University of North Carolina
Single-cell approaches to deconvolution of disease-associated signals	$817,969	Q2.Other	University of California, San Diego
Regulation of Neuroligins and Effects on Synapse Number and Function	$995,177	Q2.Other	National Institutes of Health
Dysregulation of Protein Synthesis in Fragile X Syndrome and Other Developmental Disorders	$1,221,847	Q2.S.D	National Institutes of Health
Functional Genomics of Human Brain Development	$1,313,408	Q2.Other	Yale University